[Name of Document] CLAIMS

[Claim 1]

A process system comprising:

a process apparatus which performs a predetermined

5   process on an object to be processed;

a plurality of detection means which detect statuses in

the process apparatus;

an abnormality detection section which detects an

abnormality in detection information from the plurality of

10   detection means;

an alarm generation section which generates an alarm

when the abnormality detection section detects an

abnormality;

an information storage section which stores the

15   detection information from the detection means and alarm

information as a process history of the process apparatus;

an alarm-related information acquisition section which

acquires information relating to an alarm selected from

generated alarms from the information storage section; and

20   a display section which displays alarm-related

information acquired by the alarm-related information

acquisition section.

[Claim 2]

The process system according to claim 1, wherein the

25   alarm-related information includes I/O address information

relating to the alarm.

[Claim 3]

The process system according to claim 1, wherein the information storage section prestores brief information on alarms according to types of the alarms, and the alarm-related information acquisition section selects brief

5   information on a selected alarm, and selects sequential information leading to generation of the alarm from information stored as the process history in the information storage section in association with the brief information.

[Claim 4]

10   The process system according to claim 3, wherein the alarm-related information acquisition section selects I/O information around generation of an alarm corresponding to the sequential information leading to generation of the alarm from information stored as the process history in the

15   information storage section.

[Claim 5]

The process system according to claim 4, wherein the display section can display a first screen which displays the brief information on the selected alarm, a second screen

20   which displays sequential information leading to generation of an alarm, and a third screen which displays I/O information around generation of an alarm.

[Claim 6]

The process system according to claim 3, wherein the

25   brief information stored in the information storage section according to the each alarm includes an ID of the alarm, contents of the alarm, one or two or more possible reasons

for generation, and actions against individual reasons for generation.

[Claim 7]

A process system comprising:

a process apparatus which performs a predetermined process on an object to be processed;

a plurality of detection means which detect statuses in the process apparatus;

an abnormality detection section which detects an abnormality in detection information from the plurality of detection means;

an alarm generation section which generates an alarm when the abnormality detection section detects an abnormality;

an information storage section which stores the detection information from the detection means and alarm information as a process history of the process apparatus and prestores an alarm table describing brief information according to individual alarms and linkable to the process history;

an alarm-related information acquisition section which selects brief information on an alarm selected from the alarm table in the information storage section and acquires, as link information, sequential information leading to generation of the selected alarm from information stored as the process history in the information storage section; and

a display section which displays alarm-related

information acquired by the alarm-related information acquisition section.

[Claim 8]

The process system according to claim 7, wherein the alarm-related information acquisition section selects I/O information around generation of an alarm corresponding to the sequential information leading to generation of the alarm.

[Claim 9]

The process system according to claim 8, wherein the display section can display a first screen which displays the brief information on the selected alarm, a second screen which displays sequential information leading to generation of an alarm, and a third screen which displays I/O information around generation of an alarm.

[Claim 10]

The process system according to claim 7, wherein the brief information stored in the information storage section according to the each alarm includes an ID of the alarm, contents of the alarm, one or two or more possible reasons for generation, and actions against individual reasons for generation.

[Claim 11]

A process system comprising:

a plurality of process apparatuses which perform a predetermined process on an object to be processed;

an apparatus control unit which controls the plurality

of process apparatuses based on information to be detected

in the process apparatuses, detects an abnormality when the

information to be detected in the process apparatuses is off

a predetermined range, and generates an alarm when the

5   abnormality detection section detects an abnormality; and

a control apparatus which receives all or nearly all

process information from the process apparatuses, and

controls the process apparatuses based on the process

information, and which includes

10   an information storage section which stores the

process information and alarm information received from the

process apparatuses as process histories of the process

apparatuses,

an alarm-related information acquisition section

15   which acquires information relating to an alarm

selected from generated alarms from the information

storage section, and

a display section which displays alarm-related

information acquired by the alarm-related information

20   acquisition section.

[Claim 12]

A process system comprising:

a plurality of process apparatuses which perform a

predetermined process on an object to be processed;

25   an apparatus control unit which controls the plurality

of process apparatuses based on information to be detected

in the process apparatuses, detects an abnormality when the

information to be detected in the process apparatuses is off

a predetermined range, and generates an alarm when the

abnormality detection section detects an abnormality; and

a control apparatus which receives all or nearly all

5   process information from the process apparatuses, and

controls the process apparatuses based on the process

information, and which includes

an information storage section which stores the

process information and alarm information received from

10   the process apparatuses as process histories of the

process apparatuses, and prestores an alarm table

describing brief information according to individual

alarms and linkable to the process history,

an alarm-related information acquisition section

15   which selects brief information on an alarm selected

from the alarm table in the information storage section

and acquires, as link information, sequential

information leading to generation of the selected alarm

from information stored as the process histories in the

20   information storage section, and

a display section which displays alarm-related

information acquired by the alarm-related information

acquisition section.

[Claim 13]

25   A process method comprising: storing detection

information from a plurality of detection means provided in

a process apparatus, which performs a predetermined process

on an object to be processed, and information on alarms to
be generated when detecting an abnormality in the detection
information from the plurality of detection means, as a
process history in an information storage section; acquiring

5   information relating to an alarm selected from the generated
alarms from the information storage section; and displaying
alarm-related information acquired.

[Claim 14]

The process method according to claim 13, wherein the

10   alarm-related information includes I/O address information
relating to the alarm.

[Claim 15]

The process method according to claim 13, wherein the
information storage section prestores brief information on

15   alarms according to types of the alarms, selects brief
information on a selected alarm, and selects sequential
information leading to generation of the alarm from
information stored as the process history in the information
storage section in association with the brief information.

20   [Claim 16]

The process method according to claim 15, wherein
acquisition of the alarm-related information is carried out
by selecting I/O information around generation of an alarm
corresponding to the sequential information leading to

25   generation of the alarm from information stored as the
process history in the information storage section.

[Claim 17]

The process method according to claim 16, wherein the alarm-related information is displayed on one of a first screen which displays the brief information on the selected alarm, a second screen which displays sequential information leading to generation of an alarm, and a third screen which displays I/O information around generation of an alarm.

[Claim 18]

A process method comprising: storing detection information from a plurality of detection means provided in a process apparatus, which performs a predetermined process on an object to be processed, and information on alarms to be generated when detecting an abnormality in the detection information from the plurality of detection means, as a process history in an information storage section; prestoring an alarm table describing brief information according to individual alarms and linkable to the process history; selecting brief information on an alarm selected from the alarm table in the information storage section; acquiring, as link information, sequential information leading to generation of the selected alarm from information stored as the process history in the information storage section; and displaying information selected from the alarm table and the acquired sequential information leading to generation of the selected alarm.

[Claim 19]

The process method according to claim 18, wherein acquisition of the alarm-related information is carried out

by acquiring I/O information around generation of an alarm corresponding to the sequential information leading to generation of the alarm from information stored as the process history in the information storage section.

5   [Claim 20]

The process method according to claim 19, wherein the display is done on one of a first screen which displays the brief information on the selected alarm, a second screen which displays sequential information leading to generation

10   of an alarm, and a third screen which displays I/O information around generation of an alarm.

[Claim 21]

The process method according to claim 15, wherein the brief information stored in the information storage section

15   according to the each alarm includes an ID of the alarm, contents of the alarm, one or two or more possible reasons for generation, and actions against individual reasons for generation.

[Claim 22]

20   A computer readable storage medium containing software that allows a computer to perform control in a way which comprises storing detection information from a plurality of detection means provided in a process apparatus, which performs a predetermined process on an object to be

25   processed, and information on alarms to be generated when detecting an abnormality in the detection information from the plurality of detection means, as a process history in an

information storage section, acquiring information relating
to an alarm selected from the generated alarms from the
information storage section, and displaying alarm-related
information acquired.

5   [Claim 23]

A computer readable storage medium containing software
that allows a computer to perform control in a way which
comprises storing detection information from a plurality of
detection means provided in a process apparatus, which

10   performs a predetermined process on an object to be
processed, and information on alarms to be generated when
detecting an abnormality in the detection information from
the plurality of detection means, as a process history in an
information storage section, prestoring an alarm table

15   describing brief information according to individual alarms
and linkable to the process history, selecting brief
information on an alarm selected from the alarm table in the
information storage section, acquiring, as link information,
sequential information leading to generation of the selected

20   alarm from information stored as the process history in the
information storage section, and displaying information
selected from the alarm table and the acquired sequential
information leading to generation of the selected alarm.
[Claim 24]

25   A computer program containing software that allows a
computer to perform control in a way which comprises storing
detection information from a plurality of detection means

provided in a process apparatus, which performs a predetermined process on an object to be processed, and information on alarms to be generated when detecting an abnormality in the detection information from the plurality

5   of detection means, as a process history in an information storage section, acquiring information relating to an alarm selected from the generated alarms from the information storage section, and displaying alarm-related information acquired.

10   [Claim 25]

A computer program containing software that allows a computer to perform control in a way which comprises storing detection information from a plurality of detection means provided in a process apparatus, which performs a

15   predetermined process on an object to be processed, and information on alarms to be generated when detecting an abnormality in the detection information from the plurality of detection means, as a process history in an information storage section, prestoring an alarm table describing brief

20   information according to individual alarms and linkable to the process history, select brief information on an alarm selected from the alarm table in the information storage section, acquiring, as link information, sequential information leading to generation of the selected alarm from

25   information stored as the process history in the information storage section, and displaying information selected from the alarm table and the acquired sequential information

leading to generation of the selected alarm.